LUMINARY Memo #95

To: Distribution
From: R. Covelli
Date: 9 July 1969
Subject: Landing Radar Orientation

There has been some confusion concerning the polarity of the Euler angles defining the landing radar orientation with respect to the navigation base.

The angles α and β, as defined on page 5.3-80 in Revision 4 of R567, are the Euler rotations required to transform the navigation base system to the antenna system.

The angles LRALPHA and LRBETA1 (LRALPHA2 and LRBETA2) used in the SETPOS routine in LUMINARY, are the negatives of α and β. This is because they are used as Euler rotation angles from the antenna system to the navigation base system in the order LRBETA1, LRALPHA.

The reason for the opposite sense was to minimize the coding requirements for this subroutine, and unfortunately the usage in the LGC was not clarified. The input to the LGC should be the negative of the angles as defined in R-567.